





## COMMENT

A FISHERIES research vessel going to sea is hardly an enthralling sight for a fisherman. Instead of being fired by the thought that it might be breaking through scientific boundaries which could bring new knowledge and rich rewards, fishermen usually regard the work of scientists as something abstract which has no real meaning for them.

This gap between the scientist and the fishing industry, has been clearly recognised in the Second Report of the Fisheries Research and Development Board, published this week. The basic problem, says the report, is that as far as gear research and development is concerned, the industry does not know what is going on and the laboratories do not know what the industry needs.

All sections of the industry, advocates the report, should be involved much more in all aspects of research and development, and more use should be made of WFA and HIB advisory panels on which the industry is represented to discuss new projects.

All this would no doubt bring about a better understanding between the scientist and the industry he serves, but there still remains the problem of quik communication which has caused so much of the trouble in the past. Research projects which start off in a great blaze of publicity, usually go on so long before any information is passed on, that all the initial interest is lost. This is what has happened with the processing trials on blue whiting, — a topic of great importance for the fishing industry.

Although the White Fish Authority has produced a field report on the trials, this now lies gathering dust at Torry Research Station, until somebody there decides that it is time the fishing industry should know something about what is going on.

Fisheries Research and Development Board, second report 1974-75, published by HMSO 85p.

## fishing news

Editor: Harry Barrett  
Assistant Editor: Ian Strutt  
Scottish Correspondent: Glorie Wilson  
Advertisement Director: Fred Purcell  
Managing Director: W. A. Cathles

Published weekly.  
Postal subscription rate £7 per annum  
£7.50 overseas  
Registered as a newspaper at the Post Office.

110 FLEET STREET,  
LONDON EC4A 2JL  
Telephone: 01-353 6961

## Tay base for 'zulu'

THE LAST zulu herring drifter in Shetland is to end her days on the River Tay after local efforts to renovate her run out of steam. Over £200 was spent on stopping the rot in the boat by a group of local enthusiasts.

Research fished her last herring in 1967, and since then has been laid up at Larwick's west dock. She has been bought by Laurence Anderson and others of Broughty Ferry, who plan to use her on the Tay for cruises to earn her keep.

Larwick enthusiasts think it is a pity she cannot stay in Shetland, but they are pleased she is going to be properly restored.

Grimsby's best haul this year  
ICELANDIC COD TRIP  
PAYS £57,344

SKIPPER Ray Pepper in BUT's *Ross Revenge* grossed a massive £57,344 at Grimsby on Tuesday after a 23-day Icelandic trip. The ship had mostly codstuffs in her 2,588-kilogram landing.

The grossing is the highest at Grimsby since *Boston Comanche* earned £80,564 to take the port record in January, 1974.

Skipper Roy Kurz in BUT's 169-footer *Vivaria* landed the previous best trip this year last Friday. He had a big catch of 2,534 kits, mainly codstuffs, which was snapped up for £53,418.

*Vivaria* headed seven distant water Icelandic trips last week at Grimsby which all showed some profitability; the first time since the recent settlement with Iceland.

With the trawlers fishing



*Vivaria* heads in with her £53,418 jackpot.

well off the north-west coast, there were some fine bags of cod and no shortage of buyers.

None of the Icelandic trips made less than £30,000 and, just behind *Vivaria*, were the BUT trawlers *Ross Kelly* (Skipper Brian Collett) with

Middle water haulers want to the Taylor trio of *Osoke* (Skipper Peter Newby), *Erimo* (Skipper George Smith) and *Yesso* (Skipper Peter Brown) with Farose Western grossings of £21,526, £18,261 and £17,878 from good catches of 1,240, 884 and 1,174 kits, respectively.

Again there were big catches of cod in this section, which have in the past proved rather difficult to move in mid-summer. But they are now selling fairly well and even the salters were buying at above the minimum.

The salters had a number of best-over grossings.

Skipper Barry Emerson put in the top trip of the week with an £8,336 grossing from 328 kits taken in a mere nine days by *Locheern*.

Skipper Emerson's daily averages of £925 is a new record for owners and agents, Tom Sleight (F. S.) Ltd.

Four saved after  
position mix-up

THE four-man crew of the Scottish boat *Jonie Girl* (BA170) spent over two hours in the vessel's liferaft last Friday afternoon when the 25-ton boat capsized and sank about 20 miles off Douglas, Isle of Man.

Several ships and a helicopter from Anglesey mounted a search after a Mayday call was sent from the sinking boat. The information was that she was sinking about 20 miles south-west of Douglas Head.

But the would-be rescuers found nothing in the area and, some time after the distress signals stopped, a message was received from

*Golden Star* stating that she had been fishing with *Jonie Girl* south-east of Douglas, not south-west.

Fortunately, the tanker *Dingle Bank* and the German ship *Ludwigshafen* were nearby and the former quickly located the liferaft and took the skipper and three crew members aboard.

Their 24-ton vessel had sunk without trace and the man were brought into Douglas unhurt.

The cause of the sinking was still not clear earlier this week and a spokesman for the Manx Harbour Board said: "It may well be the subject of an inquiry. We just don't know yet."

LIMIT PLEA  
AS PURSERS  
'PLUNDER'

SHETLAND Fishermen's Association has joined in protests against the Government's fishing limit proposals and sent a strongly worded letter to the Department of Agriculture and Fisheries for Scotland.

Said association secretary, George Hunter: "While we welcome the idea of a 50-mile limit on the east side of Shetland, this is not enough."

"We object to a 12-mile limit on the west side, and want a 50-mile limit all the way around Shetland and right down the west coast."

## MERGER

In particular they are horrified at the prospect of valuable fishing grounds from south-west of Shetland extending down the Scottish west coast being protected by only a 12-mile limit.

The federation points out that these grounds, already under severe pressure from foreign fishing effort, will without doubt attract an even

greater concentration of fishing from non-EEC vessels displaced from other fishing areas.

The federation states that it is "appalled at the Government's inability to pursue a very much more vigorous line in negotiations in order to achieve the fair deal which the legitimate right of fishermen."

MILFORD  
LOSSES

MILFORD's fleet had its worst spell in months last week with vessels coming back with meagre catches despite good weather.

Top vessel of the week was *Picton Sealion*, skippered by Trevor Salter. She landed 105 kits, including five kits of haddock, 30 of cod, 20 of whittings, 20 of roker, three of turbot and brill, 10 of plaice and three of soles, which sold for £2,864.

Earlier in the week all the vessels landed had mediocre grossings. *Picton Sea Eagle's* 170 kits sold for £2,495, while *Jadestor Gipsy* had only 71 kits which made £1,751 — both of which represent losses on their voyages. Also landing was the pocket trawler *Westerdale* which made £2,351 from 74 kits.

Fog air-lift  
from Ajax

AN accident on board the Looe-smouth seine-netter *Ajax* while she was about 70 miles off the Norwegian coast last week led to crewman, James Campbell, being airlifted to Stavanger.

Aberdeen coastguards were alerted and they contacted the rescue service at Stavanger. A helicopter had some difficulty finding *Ajax* because of fog.

'No plans'  
until EEC  
decides

CHARLES Meek, chairman of the White Fish Authority, said last week that vessel owners are unable to plan building programmes until the Government settles the fishing limits question.

Mr. Meek, on a two-day visit to Grimsby to meet representatives of the fishing and frozen food industries, said he partly blames the present lack of investment on increased costs, but stressed the main cause for the uncertainty is that no one knows what the British share of EEC waters is going to be.

He felt our EEC partners should be reminded that Britain already controls most of the important fishing grounds within Common Market fishing waters.

He wants to see Britain "making the rules", so we can control catches and enforce sensible conservation around our coastline.

## Limits 'lunacy'

"EVERY agency, MP, island authority, trade union and the general public should raise their voices in public and back the demands of fishermen for a 100-mile limit."

This was stated last week by Peter MacLeod, secretary of the Lewis Council of Social Services. If the Government refuses to grant a 100-mile limit, the Western Isles should boycott all foreign vessels by refusing them fuel and supplies, he said.

Speaking on behalf of the council, Mr. MacLeod said: "If as indicated in press reports the west coast of

Sail and oar law  
catching  
Scots off Cornwall

FOUR Scottish fishermen who broke a local bye-law while fishing off the Cornish coast in November were each fined a maximum £50 at Helston-Kerrier magistrates' court on Friday.

The Peterhead-registered *Amethyst* was plotted from the patrol boat *Polaris*. The cases against five other Scots boats were adjourned until October by the court.

Chairman of the bench, Russell Knights, said the law is to safeguard Cornish fishing rights. He felt the maximum fine is rather low.

Four owners of *Amethyst*: James Forbes Buchan; William Noble Walker; John Alexander Buchan; and Robertson Buchan, all from Peterhead, pleaded guilty.

They admitted using a trawl in fishing for sea fish while the vessel was propelled for the time being otherwise than by sails or oars.

Mr. J. Whiting, prosecuting for the Cornwall Sea Fisheries Committee, said the prohibition applied to vessels over 30 tons net or 80ft.

The bye-law protected the limited area of smooth sea around the Cornish coast from being denuded of fish by bigger boats. In mid-waters, it protected surface feeding fish.

Mr. Whiting said the law enabled small boat owners to work in sheltered waters and to earn a reasonable living.

Mr. Whiting said the trawler had been inside the three-mile limit and had broken a bye-law made in 1949.

Cornwall's chief fishery officer, Brounand S. Tonkin, found ten vessels trawling between The Lizard and the Manacle rocks.

By the use of radar and a Navigator, he plotted their position as being 2.5 miles from land.

Mr. Tonkin boarded *Amethyst* off Black Head, and told the skipper, James Forbes Buchan, that he had broken a bye-law.

Mr. Whiting stated that the skipper said it was the first he had heard of it. When Mr. Tonkin said that his agents had been informed, the fishermen alleged that the information had not been passed on.



vessel's structure forward of the wheelhouse and are now working from the stern (right) through the old engine room.

fishermen representatives who visited Norway are hopeful that the country's canning industry may become an even greater market for Scottish-caught sprats.

Norwegian canners have been buying substantial quantities of sprats from Scotland.

Included in the party visiting Norway were chief executive of the Scottish Fishermen's Organisation, James Lovie, and the Anglo-Scottish Fish Producers' Organisation executive, Donald Loudon.

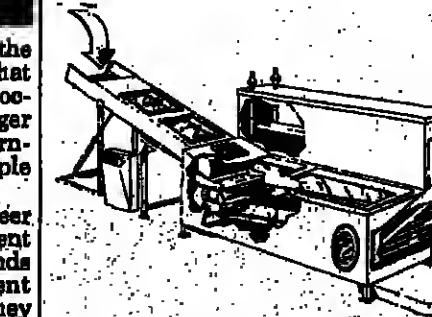
Ex-skipper Lovie said there were questions of grading, quality-control and price to be worked out, but the prospects "looked good".

Dichlorodifluoromethane.  
For a better class of shrimp,  
it's the only way to travel.

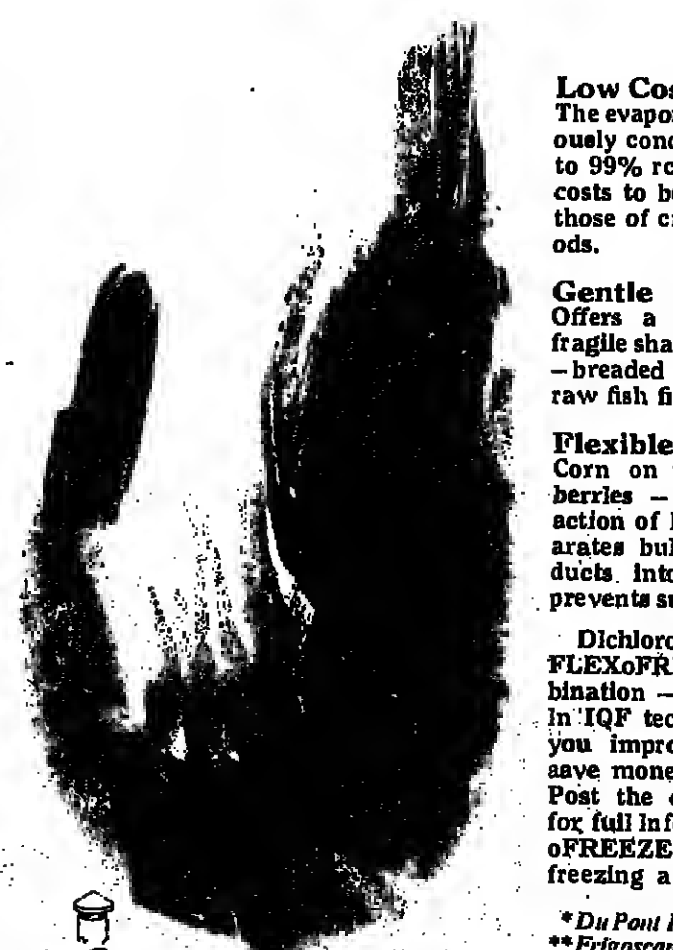
Dichlorodifluoromethane, pronounced "Freon", now with full UK approval, is a specially purified grade of liquid Freon Freezant (LFF) which makes possible IQF treatment of sensitive, delicate products like shrimps which present uncommon freezing difficulties owing to their fragile or sticky nature.

The possibilities inherent in this breakthrough are skillfully exploited in the freezer know-how behind the design of Frigoscandia's latest freezer — FLEXo-FREEZE.

Fast FLEXo-FREEZE — Dichlorodifluoromethane or liquid Freon, when used as a freezant comes into direct contact with the product. The result is a super-fast freezing process that locks in natural juices and preserves texture and flavour to such an extent that many Freon frozen products are virtually indistinguishable from those that are fresh.



FRIGOSCANDIA  
Frigoscandia Ltd., Scots House, Huddersdon, Herts. EN11 5TT. Tel: Huddersdon 67131. Telex: 22835



Low Cost FLEXo-FREEZE — The evaporated freezants continuously condensed and recycled. Up to 99% recovery enables freezing costs to be reduced to about half those of cryogenic freezing methods.

Gentle FLEXo-FREEZE — Offers a pre-freeze system for fragile shapes and surface coatings — breaded uncooked shrimps and raw fish fillets for example.

Flexible FLEXo-FREEZE — Corn on the cob, fried chicken, berries — the unique "boiling" action of LFF automatically separates bulk fed particulate products into separate pieces and prevents subsequent sticking.

Dichlorodifluoromethane and FLEXo-FREEZE are a great combination — another breakthrough in IQF technology that can help you improve your product and save money at the same time. Post the coupon or phone now for full information. With FLEXo-FREEZE soft foods don't find freezing a shattering experience.

\*Du Pont Registered Trade Mark  
\*\*Frigoscandia Registered Trade Mark

Yes please, I'd like to know more about FLEXo-FREEZE

Name \_\_\_\_\_  
Position \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone \_\_\_\_\_

Important message to  
British fishermen

F. R. Kitchen Hydraulics Ltd. are now servicing HYDRAULIK BRATTVAAG deck auxiliaries in the U.K.

Owners of vessels equipped with low pressure hydraulic deck auxiliaries from A/S Hydraulik Brattvaag of Norway, have been used to turn to Humber St. Andrews Eng. Co. Ltd. in Hull for service and parts for their gear. Unfortunately, for both our U.K. customers and us, this well established company have decided to withdraw from business.

We regret, but respect their decision, and take this opportunity to thank them for a splendid job through the years.

However, F. R. Kitchen Hydraulics Ltd., Hull, have taken over as our service representative to the fisherman of U.K. We know that they will perform

to the best of their ability to give you quick and competent service, bailing specialists on all sorts of hydraulic equipment.

So, take care to note their address:  
F. R. Kitchen Hydraulics Ltd.,  
Albert Dock East,  
HULL, HU1 2DN  
Tel: 0482/25 578  
Telex: 52 584

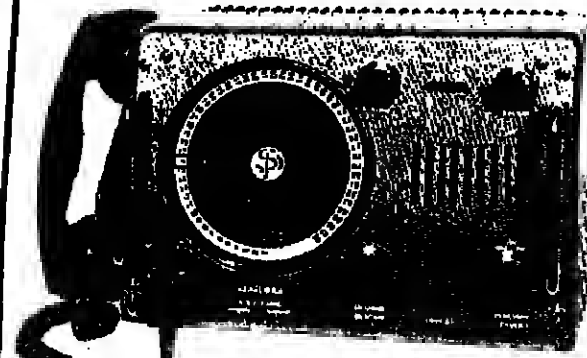
MAKERS OF HYDRAULIC DECK AUXILIARIES

HYDRAULIK  
BRATTVAAG

N-0270 (Hull) Norway. Cable: Hydraulik. Tel.: (071) 16 000  
Line 29 - Telex 42 368 Hydron.



## SAILOR marine radio equipment



### SAILOR 55 CHANNEL VHF

Price:  
£395 — 12 volt  
£425 — 24 volt

#### Details from

S.P. Radio  
Cerulean House,  
Dingwell Road  
Croydon CR9 2XT  
Tel: 666-5381

S.P. Radio  
Albert Street  
Grimsby  
Lincs.  
Tel: 55903

S.P. Radio  
8 Howard Street  
Edinburgh  
Scotland  
Tel: 556-3559

S.P. Radio  
Woodsons Ltd.  
Govan House, Dyce  
Aberdeen.  
Tel: Dyce 2884.

## in BRIEF

A SCHEME costing more than £9m. for a massive new harbour complex at Guernsey, Channel Islands, has been abandoned. A specially-designed hollow sea wall was to have been built from the north arm of St. Peter Port harbour to the south arm of St. Sampson's harbour. A fishing harbour was planned for part of the 330-acre area reclaimed.

A NORWEGIAN factory trawler was reported to have caught a submarine while fishing in the Barents Sea last week. *Sjovik's* crew had to cut the warps after the trawler started to be towed backwards.

DECCA will have a demonstration vehicle at the Southampton Boat Show from September 18/19 at the Mayflower Park, Southampton. The vehicle will be equipped from the wide range of navigational and other instruments from Decca Radar and Decca Navigator.

GRANTS paid in 1975 by the Shipwrecked Fishermen and Mariners' Royal Benevolent Society amounted to £120,946, of which £55,612 was distributed in Scotland.

## YARD TURNS TO TRAWLERS

A CO. WEXFORD, Ireland, shipyard is planning to start building steel trawlers. Ross Co., which has specialised in commercial craft, is preparing a waterfront site for a shed to build trawlers in series.

# Doggers are struggling

AFTER a promising start to the summer line fishing season at Grimsby some in-different fishing is keeping the dogfish catches down on last year's figures.

This is happening even though the fleet of local and visiting inshore has been bolstered by a number of new recruits to Grimsby.

From 17 landings last week only 700 kits were turned out and, to make matters worse, quayside prices drifted down to the £16 and £17 mark per kit after starting the week around £20.

A spokesman for Sam Chapman & Sons Ltd., which agents many of the visitors, told *Fishing News* it is hopeful the situation would change once the fishing picked up.

This optimism was echoed by the Tom Slight (F.S.) Ltd. agency which also handles the inshore liners.

Only the Bridlington vessel *Tradition* (Skipper Dennis Jewitt) topped 100 kits last week from two landings of 62 and 71 kits.

However, *Wellspring* (90 kits), *Betty* (87 kits) and the local *Peggy III* (81 kits) went close with one trip apiece, while the Lowestoft liner



The Hull-based trawler *St. Dominic* (Skipper R. Grayburn) grossed £33,347 for 1,816 kits on Monday after a 23-day White Sea trip.

Alison Jane also just missed the ton with two landings of 31 and 54 kits.

# Gear firm goes fishing

## SEVEN- HOUR

AN ICELANDIC boat is expected to start work from Fleetwood.

She is the 64 ft. long *Saeþor* of Dalvík which arrived at the port with an Icelandic crew on Saturday last week.

When international formalities are completed, the vessel will be bought by the Halifax-based fishing gear and equipment suppliers, Morep Ltd., and will be fished by local skipper, Derick Reader. She will work with a Fleetwood crew.

The boat — to be renamed *Seathor* — is just two years old. Her prospective owners told *Fishing News* she may join in the Manx herring season in September and that she is a multi-purpose craft.

*Seathor* is capable of side and stern trawling, seining and longlining — and even has a cooled fish hold. The main engine is a 313 hp Scania Vabis.

Her trawl winch is mounted on the foredeck and she is equipped with a Rapp net drum and power block. There is a shelter deck for helting hooks when lifting.

The crew's cabin, below the foredeck, has berths for seven and is fitted with radio and TV, plus a sink. The galley is below decks, aft.

*Seathor* has a compact wheelhouse equipped with Simrad fish finders, Decca Mk21 Navigator, a radar, Robertson autopilot and 'Sailor' R/T.

Through a subsidiary company, Thorn Fisheries, Morep already operates the 60 ft. trawler *Zuider Zee*. This vessel is now pawning from Fleetwood under Skipper Harry Chandler.



*Seathor* off Fleetwood. She is being skippered by Derick Reader (below) who has a Fleetwood crew. The boat's trawl winch is on the foredeck, forward.

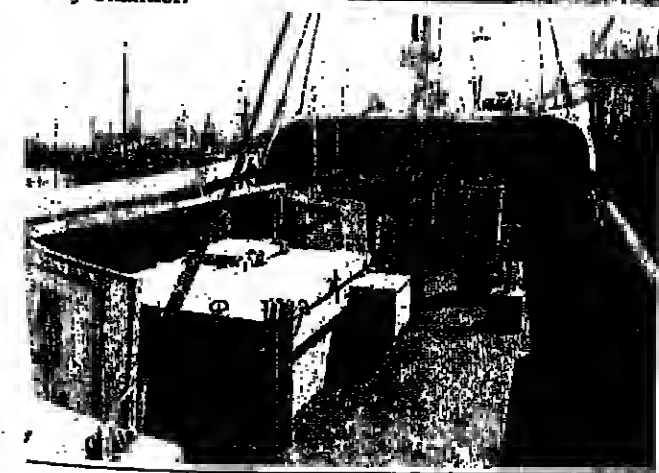


# All the way with DECCA

MAJESTIC, the second of four steel seiner-trawlers, was built by Bideford Shipyard (1973) Ltd, Devon, for Bogg Holdings of Bridlington.

She is a multi-purpose fishing vessel similar in design to modern Scottish vessels with all-welded hull, raked stern and cruiser stern.

Her bridge electronic equipment includes Decca Navigator Mk21 with 350T Track Plotter; Decca Pilot type 350 with Watch Alarm linked to a Tenford hydraulic steering gear; Decca RM 914 radar and Simrad EQ Sounder and C1 Scope.



# PAIR TEAM JOINS ELITE

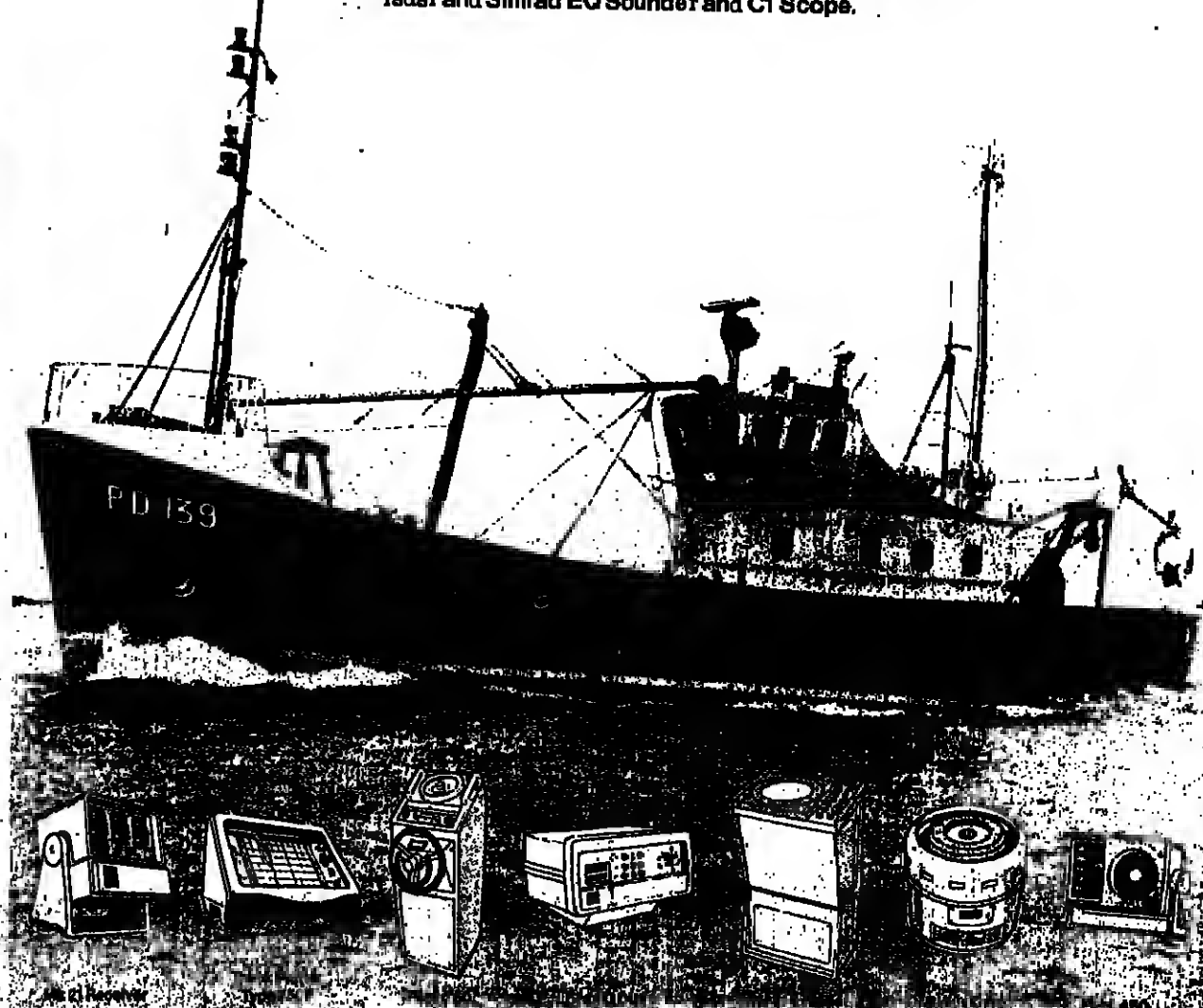
THERE ARE now 15 pair trawling teams operating from Grimsby.

Many of the vessels which so often hit the headlines are the newer, purpose-built craft which have a much larger fish carrying capacity than some of the older teams.

Last week, however, this rule was broken when the Decca Fishing Co.'s pair, *Searcher* (Skipper Borge Ne-trup) and *East Bank* (Skipper Jerry Lee), notched up a combined grossing of £18,970.

They work through the Tom Slight (F.S.) Ltd. agency and had been out on an eight-day North Sea trip which turned out 718 kits for the pair.

These excellent figures conceal a daily average per vessel in excess of £1,000, and put *Searcher* and *East Bank* among the elite of Grimsby's



The Decca Fishing Co. Ltd. agents for the pair. *Searcher* and *East Bank* are skippered by Borge Ne-trup and Jerry Lee respectively.

# CO-OPS CUT COSTS ... Scots federation booming

MORE and more Scottish fishermen are becoming aware of the economic advantages gained from controlling their own interests from catching to marketing.

This is clearly evident from the growing number of co-operative associations which are being set up in Scotland.

The objects of individual co-operatives vary, but they can handle such diverse trades as fish selling and merchandising, chandlery, insurance and boat owning.

Whatever interests they cover, they are controlled by the fishermen — profits are distributed to members or are placed in reserve for their benefit.

Some Scottish co-ops are well established, the Arbroath Fishermen's Association having celebrated its 50th anniversary last year.

Others, such as the Mull Fishermen's Society, the Oban Fishermen's Co-operative Trading Society and Kintyre Fishermen have been set up in recent months. Their members feel it is necessary to form co-ops in an effort to cope with ever-increasing operating costs.

Initially these three new co-ops are dealing mainly in chandlery, gear and oil.

The Mull society has particularly diverse members, initially consisting of two



David Brown, the new chairman of the Scottish Federation of Fishermen's Co-operatives Ltd.

trawl skippers, seven lobster boat owners, seven salmon station owners and a fish farmer. Already, it is said that the society has achieved a feeling of unity amongst its members previously unknown on the island.

One of the more spectacular success stories is that of the Fishermen's Mutual Association (Buckie), which was inaugurated late in 1972 by a group of local fishermen headed by Skipper George Slater of *Surmount*.

The enterprise has steadily grown in importance and, on November 7, 1975, annual gross fish sales exceeded £1m. for the first time.

There are now about 20 members, including one or

two of the larger boats in the Peterhead fleet.

The association has chandlery stores in Buckie and Peterhead which supply both members and non members, and recently an oil distribution service was set up in Peterhead.

The development of the co-operatives has given rise to two new organisations: the Scottish Federation of Fishermen's Co-operatives Ltd. and Fishing Co-operatives Trading (Scotland) Ltd.

Recently the Federation held its third annual general meeting and dinner in Arbroath. Chairman Mr. J. Malloch, who is manager of the Orkney Fishermen's Society, ended his three year tenure of office and new chairman is the well-known secretary and manager of Fishermen's Mutual Association (Eyemouth), David Brown.

The overall aim of the federation is to protect and promote the interests of the fisherman's co-operatives in Scotland and to assist in their operation.

A grant from the Development Commission has enabled the federation to employ a full-time development officer, who is available for consultation with fishermen and to advise on the formation and running of co-ops.

Already 17 co-ops are

members of the federation and the membership is likely to rise further in the coming months.

Fishing Co-operatives Trading (Scotland) Ltd. (FCTS) is a organisation founded in July 1975 to combine fishing co-ops to buy various items in bulk at reduced cost.

Initially the group dealt in sundry items, such as rubber gloves and plastic buckets, but can now supply practically all the catcher's requirements including net, ropes, oil and protective clothing.

In addition, the group acts as agents for Bepuf, as agents for S. and M. Liferabits and S. and M. Liferabits, and also supplies its own brand of tea, coffee, bilge wash and detergents.

The main advantages gained since forming the group are that better terms are achieved by the large negotiating power of a number of co-ops agreeing to put most, if not all, of their combined turnover of a specified product to one supplier.

The group sees its role as working to keep prices down and to keep fishermen in business.

Chairman of the FCTS, Alan Caird, manager of Arbroath Fishermen's Association, will be secretary to the FCTS.

## QUICKER BUILT AND BETTER BUILT

### Just add Wills-Ridley

Quicker deliveries and easier installations are just two of the benefits when you choose Wills-Ridley. And your customer gets a better built boat with utterly reliable steering gear. Deliveries range from off-the-shelf to 20 weeks dependent on specification and size.

The range covers craft designed for rudder torques up to 52 tonsft (15,000 kgm) in three types: hand hydraulic, hand/power assisted hydraulic and power hydraulic. For boats ranging from 6-60 metres, Wills-Ridley is the gear to specify. Send us the steering requirements of your next boat-building job and we'll take it from there. Quickly.



### S.M.WILLS

Marine Hydraulic Engineers,  
1002 Winterstall Road, Weston-Super-Mare,  
Avon BS23 3YG. Tel. (0934) 28114.  
Telex: 449533 (Answer back: Steering Weston)  
Cables: Steering, Weston-Super-Mare.

## DEAR AND MAINTENANCE PRODUCTS AT COMPETITIVE PRICES

Delmar Lubricants & proven crafts.  
Dinop Herbie & Infestation. Davi hydraulic steering gear. Falso wire cutters — anemometers. Anodes — blades — winches. Catalytic (no flame) gas heaters. Poly. rope — all types & sizes. PVC & nylon hose — all diameters.  
Little Ship paints & antifouling. Goodie caulking rubber/sealer. Spin-nak varnish — Anilite, Aerolite — Nitromore — Cuprol. Siger — paint brushes etc.  
WRITE OR PHONE FOR PRICE LIST AND DETAILS OF THE EQUIPMENT YOU WANT

### MARINAC FISHING SUPPLIES

7 Scotland Street, Glasgow G1  
Tel: 641 423 6617 8-4-76

## MARINE AUCTIONS LIMITED

sells by private treaty  
and/or auction.

Open 7 days a week. 800 vessels sold during 1975. Hundreds of prospective buyers call at the premises weekly.

Write or phone 020 15 8888  
Tunbridge Wells, Kent.



# Public flocks to fish lab

THERE WAS a low turn out of fishing industry men at the Lowestoft Fisheries Laboratory's open days held from June 29 to July 2.

Over the four days an estimated 2,000 visitors saw the exhibition on fish stock management and, despite a lack of fishermen, the MAFF laboratory says it is well pleased with the results.

The open days were aimed at giving the industry and general public a better insight into the workings of a Ministry laboratory; this was done using illustrated display stands and staff members were on hand to answer questions. At Lowestoft harbour, the research vessels *Clione* and *Corella* were also open to visitors.

Mr. W. S. Stevens (left) and Mr. T. Willems demonstrate to visitors during the Lowestoft laboratory open days how the average size of plaice is gauged. MAFF employs full-time staff in all the major ports to carry out this work.

figures, namely: weight of fish landed; fishing effort; fishing gear and fishing position. The weights of all species of fish landed are recorded separately for each vessel over 40ft. in length. In 1974 these boats made 38,521 landings, says the lab.

Landings from smaller boats are grouped and the value of each species landed is recorded at the same time. The laboratory also logs the amount of time each vessel spends catching fish.

To do this the MAFF employs full-time staff in England and Wales to collect information at all the major ports and, in the smaller ports, there are part-time collectors.

As MAFF has no statutory powers to gather these details, its collection depends upon the co-operation and goodwill of members of the industry.

It is on this kind of information that management strategies are based. The policies are determined by the Government, usually working through the international commissions which make the rules on how fisheries are conducted.

One of the laboratory's functions is to monitor sea temperatures and tidal fluctuations by using floating laboratories moored in the sea. When Grimby seiner skipper, Ejner Sorensen, found one in his nets recently it came as quite a surprise.

The skipper took the buoy back to Grimby where the unusual catch was handed over to grateful MAFF officials, who then returned it to the research establishment at Lowestoft.

One of the laboratory's other functions is to find the effects different types of fishing gear have on stocks and the sea bed. One method is beam trawling; a very efficient way of catching soles.

Large numbers of chains—sometimes as many as 15—are attached to the beam ends, known as 'tickler chains'. These get their name because they are designed to 'tickle out' flatfish which live slightly buried in the sea bed. The laboratory investigated this problem using divers to watch the action of the trawl and to bury measuring devices in the sea bed to see how deeply the tickler chains penetrate.

It was found that the chains dig down to 4in. on sand and 1in. on mud. It was also noted that much of the animal life on the bottom was left unharmed. However, the beam trawl catches many more bottom-living animals than on other trawl and more fragile creatures are badly damaged. But this does have its good points. A lot of these animals, such as sea urchins, cannot be eaten by fish in their undamaged state, so breaking them up makes them available as food.

One of the problems now facing the industry is finding new grounds and stocks, and the laboratory has gone some way towards solving this problem. Blue whiting is one answer, but this species is only available around our coasts for two or three months of the year.

The Ministry's research vessel *Cirafono* recently pioneered trawling to the west

of the British Isles in depths ranging from 1,300 to 3,600ft. Many different species of fish are there, the most useful being the grenadier, the black scabbard, the director fish and several varieties of dogfish. There are many deep grounds in this area where the catch per hour is equal to, or even better than, many conventional distant water grounds.

Because of the great depth, however, only the biggest and most powerful trawlers can work these grounds. Even for them the time taken to pay out and haul their trawls means a cut from 18 to 12 fishing hours each day.

The advantages of exploiting these grounds are threefold: they are nearer home ports, so saving steaming time and fuel; they provide a source of food for a number of species of cod, haddock, etc., have been taken; and, by diverting our fleet to these deep waters, the fishing pressure on other stocks would be eased, giving them a chance to build up and provide bigger catches in the future.

## Fleetwood expensive for Marr

FLEETWOOD'S biggest trawler owning firm, J. Marr and Son Ltd., has expressed concern at the increasing share of the financial burden imposed by the port's fish dock modernisation.

Chairman Alan Marr said last week: "In 1970 we were operating 35 trawlers with an average age of 10 1/2 years. Today, we are fishing 30 trawlers with an average age of 6 1/2 years."

"As they are more efficient vessels, our fishing capacity and profitability has increased considerably—but we have had to invest heavily to do it. We have bought 23 new trawlers since 1970 at a cost of £14m.—another three are being built."

"With this sort of record it is aggravating to hear politicians, including Ministers, claiming a lack of investment in the industry—investment when we are not only paying for £7m. worth of borrowings on our new vessels but also, through port charges, are shouldering a large share of the cost of port improvements."

Mr. Marr added: "Our main concern in the short term is to protect the big investments we have in Fleetwood. We are the biggest operator and very conscious of the fact that it is our effort that keeps the port going."

"The vessels we have built for Fleetwood are designed for home water fishing as well as having the ability to go to distant waters like Iceland. But our future at Fleetwood eventually depends on fleet expansions and our being able to go back to the grounds west of the British Isles, which heavy foreign fishing has pushed us out of."

Mr. Marr pointed out that the company's plans to expand on at Fleetwood and use of these new vessels would be hampered if in other countries could get some relief from the heavy burden of port improvements.

# DEBATE

"THE present and the future for the fishing industry" will be the subject of a two-day conference at Hull from October 28-29 arranged by the Humberside branch of the Nautical Institute.

Open to all interested persons, it will be held at the Department of Maritime and Engineering Studies, Hull College of Higher Education, George Street, Hull.

The talks will start at 9.15 a.m. on Thursday, October 28, with a speech by Mr. J. Johnson, MP, following a welcome to participants by Capt. A. Simpson, Dean of the Faculty.

Subsequent speakers and their subjects will include Mr. T. W. Boyd Jr., president of Hull Fishing Vessel Owners' Association, on *The trawling industry*; and Capt. the Rt. Hon. W. J. Long, JP, Northern Ireland Fish Producers' Organisation Ltd., on *The inshore fishing industry*.

Mr. E. Hamley, secretary general of the Fisheries Organisation Society, on its *Progressive role in inshore fisheries co-operatives and its co-operation and development*; Mr. T. Plum, MAFF,

on *Fisheries legislation*; Mr. D. J. Garrod, MAFF, on *Conservation of fish supplies and fishing quotas*; Mr. K. Kuox, WFA, Hull, on *Kingfisher Chorts*; Mr. F. Wood, Hull College of Higher Education, on *The electronic fisherman*; Capt. A. Simpson on *Education and training in the UK for the fishing industry*; Mr. J. J. Foster, Department of Agriculture and Fisheries, Scotland, on *Modern fishing developments*; and Mr. C. J. Parker, secretary NI, on *The Nautical Institute and the fishing industry*. A film on the use of sonar will also be shown.

There will be question and discussion periods at the end of each address and the conference will finish at 12.30 p.m. on Friday, October 29, with a summary by Capt. J. A. L. Cosh, vice-president, Nautical Institute.

Arrangements have been made for participants to visit the college's fishing simulator and/or the WFA's flume tank on the Friday afternoon.

The registration fee for the conference is £25 which covers attendance at the talks, one or both of the visits, lunch on the Thursday and Friday, an evening meal on Thursday and light

refreshments on Thursday morning and afternoon and Friday morning.

It does not include overnight accommodation and participants are asked to make their own arrangements.

A comprehensive hotel list is available from the City Information Service, Central Library, Albion Street, Hull, HU1 3TF (tel. Hull 223344).

Conference reservations should be made on forms returnable to Capt. D. R. Derrett, Hull Nautical College, George Street, Hull, HU1 3BW.

Cheques should be made payable to 'Nautical Institute, Humberside Branch'.

## NO CHANGE FOR PLAICE QUOTAS

THERE WILL be no change in national catch quotas next year for sole and plaice caught in the North Sea, English Channel, Bristol Channel and Irish Sea.

This was agreed at the annual meeting of the North East Atlantic Fisheries Commission, which closed in Portugal, last week.

The ban on industrial fishing for herring also

stays in force. By-catches of herring taken in industrial fisheries are limited to 15 per cent of sprat landings from July 1 to March 31 and 10 per cent from April 1 to June 30; 10 per cent of Norway pout, sandeel or other fisheries.

By-catches are subject to an overall limitation of 5 per cent in weight of the aggregate annual landings of any country.

LAST week another two of Aberdeen's laid-up trawlers, *Clione* (above) and *Braconhill*, sailed from the port bound for a Blyth shipbreaker. Before the last war Aberdeen had a fishing fleet of over 300 steam trawlers operating from the port. But in recent years the industry there has declined and today the port has a fleet of only 51 boats in operation.

# FISHGRAPH K

From every port the story is the same—"Fishgraph K" is the most successful fishfinder ever introduced to the British fishing industry. See it at your nearest Marconi Marine depot—or better still, ask the Skipper who has one.

-the most **successful** fishing echometer

## Fish plant is for line men

SIR, I am anxious to correct the erroneous views held by Mr. A. J. Pengelly, BEM, as expressed in his letter in your June 18 issue, on the subject of our fish meal plant for Newlyn.

This plant is not remotely related to inshore fishermen, but the completely separate unit at the Stable Hobbs works, currently under construction, is for processing edible fish of high quality. It is specifically intended to create a demand upon the expertise of line fishermen in Cornwall.

## Smacks of 80ft

SIR, In his Log of June 18, John Burgess mentioned a query regarding the meaning of the term "smack".

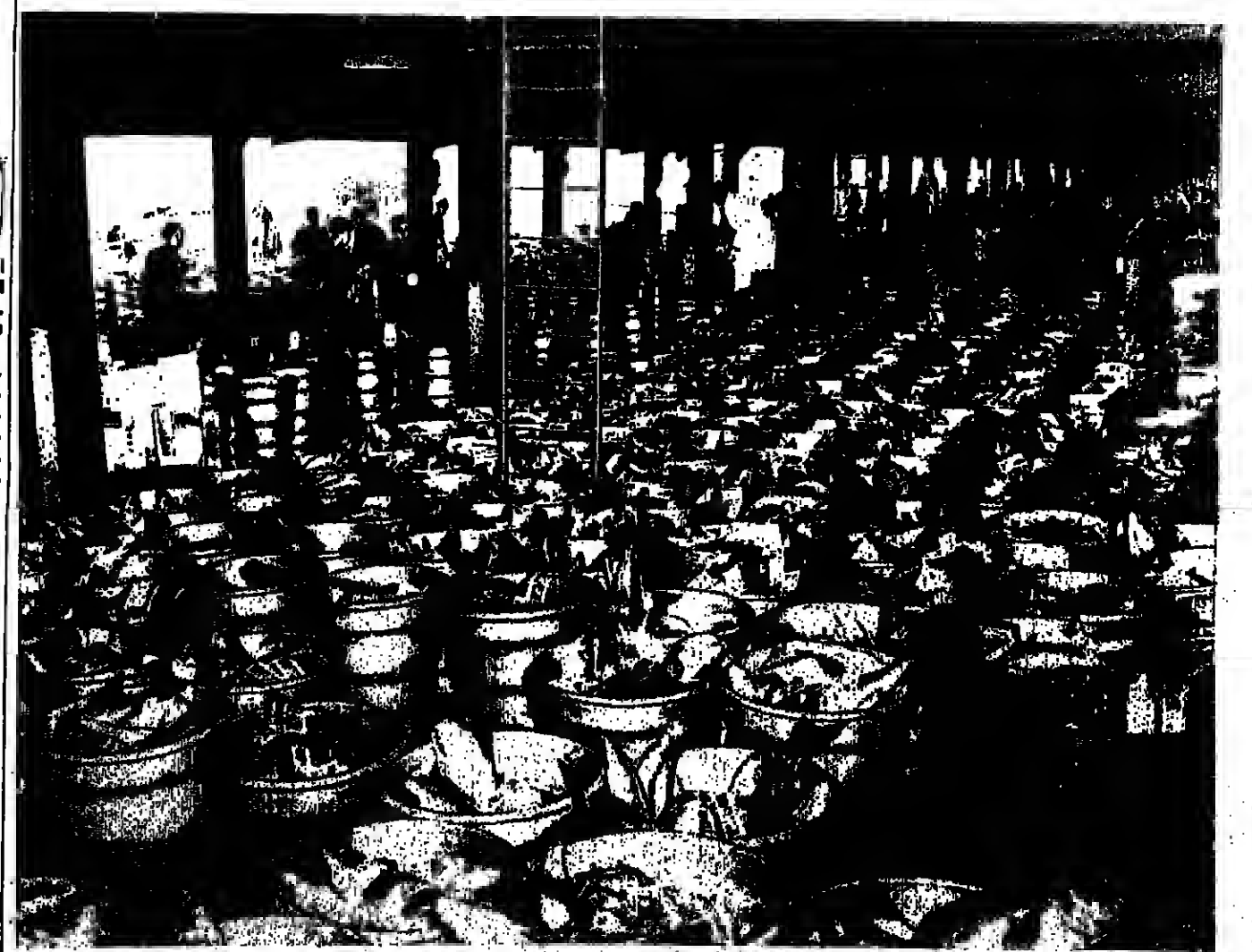
A smack was originally a sailing vessel with one mast, rigged fore and aft with a gaff mainmast and two or more headsails.

Har topsail, if carried, could be square or fore-and-aft. For practical purposes, the outer rig was the same.

Smack-rigged craft were used for carrying passengers and cargo, but the rig was found to be particularly suited to towing and oyster dredging.

For drift-netting and long-lining, however, luggers were generally preferred.

By the middle of last century, trawling and dredging smacks were found around most of the coast of Britain. When larger vessels were required for longer trips, the single-masted rig became too heavy to handle, so a second mast, the gizzard, was added. This made the rig technically



## Marconi Marine fishfinding

The Marconi International Marine Co. Ltd.  
Chelmsford Essex England  
Tel: (0246) 61701 Telex 99228 A GEC-Marconi Electronics Company

FISHING INDUSTRY DIVISION  
COMMUNICATION FISHFINDING NAVIGATION RADAR SOUND AND TV

## redexport

the complete net service

As separate companies we have individually served the Spanish fishing industry for many generations. Now our combined experience and expertise are at the service of fishermen throughout the United Kingdom.

We will make nets and trawls or sheet netting to your specifications in Nylon, Polypropylene or Polyethylene; or we will supply netting twice for net fabrication. We produce all kinds and sizes of ropes, cordage and aquelines in natural and synthetic fibres.

REDEXPORT is renowned for speedy handling of orders and has an excellent after-sales service.

REDEXPORT IS AT THE SERVICE OF THE BRITISH FISHING INDUSTRY

\* Please contact us with your requirements



General Agents in the UK  
AUSTIN & SONS  
21 POLY STREET, LONDON W1L  
TEL: 995-1812  
TELEX: 13306 (ANDAN LONDON)

General Agents in America  
S.E.D.I.  
2010 POND DRIVE, CANABLANCA  
TEL: 6104  
TELEPHONE: 27-94 04 27-11 04

General Agents in France  
LA MARIE-BARDOU SA  
42, RUE CHANZY  
93211 ANTONY, FRANCE  
TEL: 35.18.24  
TELEX: 6773

Head Office  
JACQUES MARCONI MORATO S.A. 4-4 120  
MADRID - 15  
TELEPHONE: 4195118  
TELEX: 2288 TOWER - 8



The MAFF floating fish laboratory hauled up in a Grimby seiner's nets.



# WHITE FISH PAIR TRAWL BOOM GOES ON

## - more herring boats switch

SCOTTISH herring fishermen are having to look for alternative fishing methods because of increasing restrictions on herring catching.

As many of the purse seiners and pair trawlers are not geared to seine netting, quite a number are turning to pair trawling for white fish.

About a dozen 80 to 85ft. boats in Peterhead and Fraserburgh have already been working the gear with considerable success.

Skippers are looking to the future, when the time spent herring fishing may become less and less, and so interest in the white fish pair trawl is now growing.

The Boris Net Co. Ltd. of Fleetwood has designed a nylon white fish pair trawl and, already, one is in use aboard the 78ft. Fraserburgh boat *Uberous*. Nets for another seven vessels have been ordered.

Made of black treated braided nylon, the basic nets are being manufactured in a firm's Scottish factory at Strichen, near Fraserburgh.

They are of two-seam design and are being made in two sizes: one with a fishing circle of 568 x 120 mm and meshes and the other with a fishing circle of 600 x 135 mm meshes.

The fishing circle in both nets is much larger than with any other white fish pair trawl of this type currently on the market, and the nets are designed to take higher swimming fish in addition to those on the bottom.

Both nets have 135mm meshes on the wings, 120 mm meshes in the body of the net and 95 mm in the bag; they have a headline of 114ft. and groundrope of 140ft.

The groundrope consists of a 40ft. cantra section of 16in. plastic bobbins, flanked on either side by a 25ft. section of 12in. bobbins, and with 25ft. of Swedish-style rubber legs down each toe.

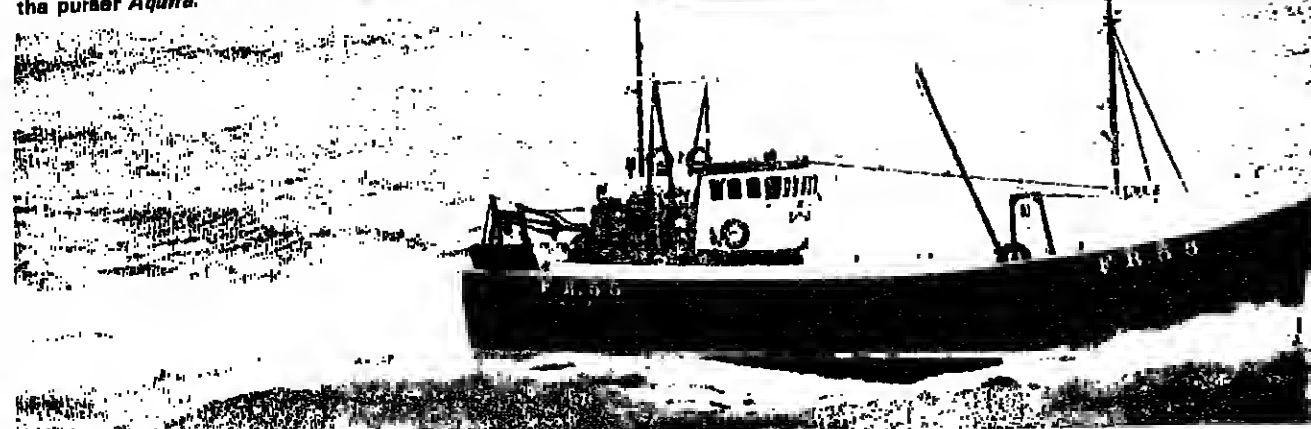
Two spreaders are used, the bottom one being of 1in. Dreg Alloy chain and the top one of combination wire.

The spreaders are normally ten to 15 fathoms long, depending on the skipper's choice, and there is a wire sweep about 30 fathoms long for smaller boats in north-between the spreaders and the trawl warp.

Each boat uses one warp, but the method of working Constellation and the 54ft. herring pair trawl. Buchanan and Bill Mackay, pair trawling for white fish began to use one of these nets.

*Vesper*, one of the three steel Macduff 75-footers which have white fish pair trawls on order.

Both vessels had been single-boat bobbins trawling but, as this was becoming patchy, they decided to try something else. Recently, the 78-footer *Aquarius* (below) is to learn up white fishing with the purse *Aquila*.



## You shouldn't rush into specifying your engines.



Obviously, your choice of engines will depend on the demands you're going to make. Power, cost, fuel consumption; they all influence your decision.

Then there are the other demands you're going to make. Like long-term economies from rugged reliability and faultless performance. Year after year after year.

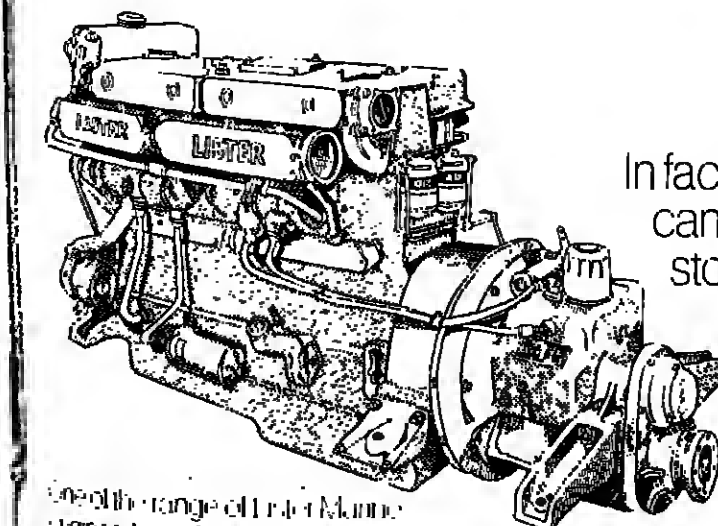
And then, when the time comes, you'll want replacement parts immediately. Anywhere in the world. So you'll be looking for a world-wide service system that won't let you down.

Where will you get all these things? Lister.



Lister Marine engines are so good that many people reckon they're worth waiting for. And that's exactly where the good news comes in.

We've expanded our production facilities to meet your schedules.



In fact, if you want a standard unit, we can probably supply straight from stock.

## Now you can rush into specifying your engines.

**HAWKER SIDDELEY**  
**LISTER MARINE**

R.A. LISTER & CO. LTD. MARINE DIVISION, DURSLEY, GLOUCESTERSHIRE GL11 4HS  
TEL. DURSLEY 4141. TELEX: 43261. CABLES: POWER DURSLEY

Hawker Siddeley Group supplies mechanical, electrical and aerospace equipment with world-wide sales and service.

Low in the water with a near record catch are *Shawnee* and *Mohave* of Grimsby. It was this pair team dodging bad weather at Fraserburgh which led to the pair trawl boom at the port.

## Sheltering team started it all off

THE FIRST TEAM to try the white fish pair trawl from Fraserburgh were skippers Joe Buchan and Bill McKay. After working for nine weeks with the 65ft. *Constellation* and 54ft. *Accord*, both skippers told *Fishing News* that they are very pleased with the gear's performance.

trawlers *Terra Nova* and *Smallwood*.

Of the new method in general he commented: "In view of increasing difficulty for single boat trawlers, due to increasing costs and diminishing catches, we feel there is a great potential for white fish pair bottom trawling."

Judging by the results so far, and comments from skippers currently fishing our pair trawls, this would seem to be a much more efficient and economic method."

As for the net in particular, Mr. Mathison described one of its most attractive features as being the material from which it is made. Although Grimsby boats on the whole seem to carry nets of braided nylon, north-east fishermen, he said, seem to favour polythene. This gives a two-way economy cut; most obvious factor is the cost—two-thirds that of nylon.

Fishermen also maintain that polythene is easier to mend and the in-built buoyancy saves it from the sea-bed, thus minimising damage to the net.

## Seiners turn to light trawls

THE Strichen factory of the Boris Net Co. is being kept very busy making single-boat light trawls for Scottish boats.

There is a terrific demand for the *Edelweiss* and *Meranthe* light trawls designed by factory manager, Bob Mathison, and currently 25 are in use. More are on order.

They are polythene, high-opening, four-seam nets which can be fished on the edge of herd ground; the first was made in 1975 for the Fraserburgh boat *Edelweiss*.

A larger model was later designed for the 67ft. *Meranthe* of Buckle.

The *Edelweiss* net has a fishing circle of 540 x 6in. meshes and the *Meranthe* has one of 630 x 6in. meshes. Both nets have wing meshes of 8in. and a groundrope composed of 190ft. of Swedish-style rubber legs.

Based on a Scandinavian idea, the groundrope rig is designed to take the strain on board the Aberdeen pair.

Turn to page 10.



# AF appoints herring boss

ASSOCIATED Fisheries announced the appointment of Mr. I. J. Llewellyn as chairman of the Herring Division last week.

Mr. P. M. Tapscott, chairman of the AF group, previously held the post on a temporary basis.

Mr. Llewellyn, who is also chairman of the AF group of companies within AF, has a long association with the herring industry. From 1953 to 1959 he was managing director of Marshall and Co. (Aberdeen) Ltd. and was previously on the boards of D. A. Macrae and Monro.

The divisional director, appointed to promote closer co-operation within the division and with other group companies, now comprises: Mr. I. J. Llewellyn, chairman; Mr. T. M. Wallace, chief executive; E. S. Robson, commercial director; C. S. Bannister, Scottish operations director; L. J. Hanford, canned goods sales director; W. J. Hoey, managing director, Maripros Ltd.; and J. Bennett, deputy chairman of the AF group.

Mr. Tapscott said: "During the last couple of years the division has made good progress towards overcoming the acute trading problems which it encountered. The changes in senior management are designed to improve the performance of the division."

"The appointment of Mr. Hanford, for example, reflects the marked revival in herring, which is once again a secure divisional activity."

"Mr. Llewellyn will bring to his office over 30 years' experience in the industry."

# COMPANY BEST BY 'BOSTON BLENHEIM'

FLEETWOOD'S Boston Blenheim set a company grossing record for a Boston-owned trawler at the port last week when she returned from Iceland with 1,988 kits worth £36,611. Skipper Bob Rawcliffe was in command.

It was the stern trawler *Iruana*, however, which was the most successful vessel of the week. Skipper Gordon Wignall took her to Iceland and returned in just 17 days with 2,140 kits. The catch included 1,500 of cod, 500 of coley, 25 of cats and 76 of reds and made £39,773.

Also doing well on the Icelandic grounds is *Govino*, a sister-ship to *Iruana*, which made £34,310 from 1,776 kits — 1,200 of cod. Skipper Charlie Scott commands the vessel.

There were different fortunes for vessels forced to fish middle-waters because of the agreement with Iceland. First in was the side trawler *Wye Conqueror*. She landed only 259 kits for a grossing of £5,225.

The small stern trawler *Novena* (Skipper Tommy Watson) fared better when she landed 666 kits, including 10 of hake, 180 of cod, 10 of plaice and 180 of haddock, which sold for £11,312.

*Novena's* sister-ship, *Armona*, also worked the middle-water grounds before returning with 567 kits — 180 of cod, 170 of haddock, 140 of coley and 20 of lamons — for a grossing of £10,448.

It was a slightly disappointing week for the port's near water trawlers which have done so much to point the way for the future. The 108ft. *Royalist*, commanded by Skipper Kan Beavers, landed 309 kits, including 35 of hake, 100 of cod, 100 of haddock and 20 of dogs. The catch sold for £6,046.

Not far behind was the 117ft. stern trawler *Resound*, commanded by Skipper Charlie Pook, which made £5,935 from 376 kits.

The highly-consistent side trawler *David Wilson* continued her good run with 411 kits, including 70 of cod, 80 of haddock, 250 of coley and 20 of dogs, which sold for £5,361.

There was a stable market for cod with prices ranging from £14 to £29, but hake was again in little demand even though most of it was from the North Channel which is renowned for its quality. Prices sagged to the minimum, with the result that fishing for the variety is once again unprofitable. In fact, cod fishing in Morecambe Bay proved a more successful bet for most small vessels.

There was a big fall in both landings and value of fish at Fleetwood in April this year, compared with the same month of 1975.

According to figures issued by the Ministry of Agriculture, Fisheries and Food, in April this year 2,354 tonnes were landed worth £727,137. This compares with 3,830 tonnes and £820,341 in the previous year.

ICELANDIC Government demands gear stowage act of 1920. First offenders found within territorial waters with gear unsecured, fines from 400 to 1,600 gold krona (422-688) will be imposed.

DANISH gunboat fires on British steam trawler, *Thomson*, outside Icelandic territorial waters. There were reports of injuries.

RECORD halibut weighing 80 stone landed at Grimsby. ABERDEEN Fish Trade Association moved their offices in South Market Street, opposite the market, and have a membership of 300.

Excellent support has come from the Lochinver Fish Selling Co. which has abasas in quite a number of the vessels. The fish are becoming more plentiful on the grounds where trawls can be worked more successfully than some nets, and a number of former seamen have switched to the gear.

One of these is the 77ft. wooden boat *Horizon*, owned by Skipper John W. C. Thomson of Looe, Cornwall, who has won the local trophy for the top vessel at the port for ten years in succession. *Horizon* is using the Maranthus net.



*Boston Blenheim* — £36,611 trip is best-ever by a Boston-owned trawler at Fleetwood.

The small stern trawler *Novena* (Skipper Tommy Watson) fared better when she landed 666 kits, including 10 of hake, 180 of cod, 10 of plaice and 180 of haddock, which sold for £11,312.

*Novena's* sister-ship, *Armona*, also worked the middle-water grounds before returning with 567 kits — 180 of cod, 170 of haddock, 140 of coley and 20 of lamons — for a grossing of £10,448.

It was a slightly disappointing week for the port's near water trawlers which have done so much to point the way for the future. The 108ft. *Royalist*, commanded by Skipper Kan Beavers, landed 309 kits, including 35 of hake, 100 of cod, 100 of haddock and 20 of dogs. The catch sold for £6,046.

Not far behind was the 117ft. stern trawler *Resound*, commanded by Skipper Charlie Pook, which made £5,935 from 376 kits.

The highly-consistent side trawler *David Wilson* continued her good run with 411 kits, including 70 of cod, 80 of haddock, 250 of coley and 20 of dogs, which sold for £5,361.

There was a stable market for cod with prices ranging from £14 to £29, but hake was again in little demand even though most of it was from the North Channel which is renowned for its quality. Prices sagged to the minimum, with the result that fishing for the variety is once again unprofitable. In fact, cod fishing in Morecambe Bay proved a more successful bet for most small vessels.

There was a big fall in both landings and value of fish at Fleetwood in April this year, compared with the same month of 1975.

According to figures issued by the Ministry of Agriculture, Fisheries and Food, in April this year 2,354 tonnes were landed worth £727,137. This compares with 3,830 tonnes and £820,341 in the previous year.

ICELANDIC Government demands gear stowage act of 1920. First offenders found within territorial waters with gear unsecured, fines from 400 to 1,600 gold krona (422-688) will be imposed.

DANISH gunboat fires on British steam trawler, *Thomson*, outside Icelandic territorial waters. There were reports of injuries.

RECORD halibut weighing 80 stone landed at Grimsby. ABERDEEN Fish Trade Association moved their offices in South Market Street, opposite the market, and have a membership of 300.

Excellent support has come from the Lochinver Fish Selling Co. which has abasas in quite a number of the vessels. The fish are becoming more plentiful on the grounds where trawls can be worked more successfully than some nets, and a number of former seamen have switched to the gear.

One of these is the 77ft. wooden boat *Horizon*, owned by Skipper John W. C. Thomson of Looe, Cornwall, who has won the local trophy for the top vessel at the port for ten years in succession. *Horizon* is using the Maranthus net.

ICELANDIC Government demands gear stowage act of 1920. First offenders found within territorial waters with gear unsecured, fines from 400 to 1,600 gold krona (422-688) will be imposed.

DANISH gunboat fires on British steam trawler, *Thomson*, outside Icelandic territorial waters. There were reports of injuries.

RECORD halibut weighing 80 stone landed at Grimsby. ABERDEEN Fish Trade Association moved their offices in South Market Street, opposite the market, and have a membership of 300.

Excellent support has come from the Lochinver Fish Selling Co. which has abasas in quite a number of the vessels. The fish are becoming more plentiful on the grounds where trawls can be worked more successfully than some nets, and a number of former seamen have switched to the gear.

One of these is the 77ft. wooden boat *Horizon*, owned by Skipper John W. C. Thomson of Looe, Cornwall, who has won the local trophy for the top vessel at the port for ten years in succession. *Horizon* is using the Maranthus net.

ICELANDIC Government demands gear stowage act of 1920. First offenders found within territorial waters with gear unsecured, fines from 400 to 1,600 gold krona (422-688) will be imposed.

DANISH gunboat fires on British steam trawler, *Thomson*, outside Icelandic territorial waters. There were reports of injuries.

RECORD halibut weighing 80 stone landed at Grimsby. ABERDEEN Fish Trade Association moved their offices in South Market Street, opposite the market, and have a membership of 300.

Excellent support has come from the Lochinver Fish Selling Co. which has abasas in quite a number of the vessels. The fish are becoming more plentiful on the grounds where trawls can be worked more successfully than some nets, and a number of former seamen have switched to the gear.

One of these is the 77ft. wooden boat *Horizon*, owned by Skipper John W. C. Thomson of Looe, Cornwall, who has won the local trophy for the top vessel at the port for ten years in succession. *Horizon* is using the Maranthus net.

ICELANDIC Government demands gear stowage act of 1920. First offenders found within territorial waters with gear unsecured, fines from 400 to 1,600 gold krona (422-688) will be imposed.

DANISH gunboat fires on British steam trawler, *Thomson*, outside Icelandic territorial waters. There were reports of injuries.

RECORD halibut weighing 80 stone landed at Grimsby. ABERDEEN Fish Trade Association moved their offices in South Market Street, opposite the market, and have a membership of 300.

Excellent support has come from the Lochinver Fish Selling Co. which has abasas in quite a number of the vessels. The fish are becoming more plentiful on the grounds where trawls can be worked more successfully than some nets, and a number of former seamen have switched to the gear.

One of these is the 77ft. wooden boat *Horizon*, owned by Skipper John W. C. Thomson of Looe, Cornwall, who has won the local trophy for the top vessel at the port for ten years in succession. *Horizon* is using the Maranthus net.

# shell fish chat

WHAT A surprising world we live in! For years we have thrown away spider crabs: now we have an export order from Spain and get 14p per lb. for them!

A firm named Rodriguez, of Santander, Spain, is buying spider crabs from fishermen in the Brixham, Kingswear and Plymouth areas. The catches are stored aboard the vessel *Notoli*, owned by the company, before being transported live in 20-25 ton loads to Spain.

There has been interest in this kind of fish since before, and the high price being paid for them is bringing an unexpected bonus to local fishermen.

I rang up the Marine Laboratory at Plymouth to ask about this crab (the French call it "errange"), which is a great delicacy on the Continent. Its scientific name is *Molus squinado* and it is found all along the south and west coasts of England and Wales.

It is one of the largest British crabs: the record spider crab had a body width of eight in. and legs 15 in. long! In years gone by "spiders", as they are called, were food for the poorer classes: they sold at 6d. for two dozen.

I have always believed that large numbers of spider crabs on the fishing grounds have an effect on the catches of lobsters and edible crabs. No sooner are they in the pot than they are constantly on the move, scrambling for

one side of the pot to the other like a fidgety child in a railway carriage! This frightens lobsters and other crabs from entering the pot.

Some years I get hundreds of spider crabs in my pots, but in other years they seem to disappear altogether from our area. We catch them from May right through to September.

Anyhow, it's good news for them and that they are fetching a good price.

**New shellfish rules**

A new Order, "The Mammals, Crabs and Lobster Order, 1976", came into force on March 15 and makes it an offence to land, sell, expose or

offer for sale, or be in possession for the purpose of sale, any crabs of the species *Concor pagurus*, or lobsters, which are smaller than the following sizes:

Crabs (*Concor pagurus*) — 115mm. (4in.) measured across the broadest part of the back; lobsters — 80mm. (3.2in.) measured from the rear of either eye socket to the rear end of the body shell along a line parallel to the centreline of the body shell.

Why has the method of measuring lobsters been changed?

An explanatory note issued by the Ministry of Agriculture, Fisheries and Food states that a lobster is at least five or six years old when it reaches the present legal size. The main function of a legal size limit is to prevent the exploitation of the stocks of juvenile lobsters, which are the future recruits to the fishery.

There has been a legal size limit for lobsters since 1877 based on a total length measurement and, although this was fairly effective, difficulties arose because of the lack of a standard method for measuring the lobster's length.

I know that this is true in practice because a lobster's size varies depending upon whether it is measured with the back upmost or if the hairs on the lobster's tail are included. What is more im-

portant, the total length of a lobster can be increased by up to the last by stretching the abdomen or tail which is the method used by some fishers.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

## Specify POWERLIFT for your vessel

Complete range of haulers to suit your requirements with hauling capabilities of: 800lbs, 1400lbs, 2000lbs.

Self hauling sheave

Capstan

Combination

POWERHAUL asme/trawl winch 2000lbs pull

Full installation kits can be supplied. 12 months warranty W.F.A. approved. AGENTS REQUIRED IN ALL AREAS.

POWER ENGINEERING (H.) LTD. Adelaide Road, Bray, Co. Wicklow, Ireland. Phone 860462, Telex 30288.

UK distribution: Colin Manning, 20 Watton Estate, South Street Rd. Hockland, Angsey, Wales. Telephone: Hockland 4415.

How a metal gauge is used to measure a lobster's carapace.

portant, the total length of a lobster can be increased by up to the last by stretching the abdomen or tail which is the method used by some fishers.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

Wales, the still being heavily fished, and the fishery is expected to improve in the near future. The report is due to be published in the near future.

# Get a Tyler hull ...and what have you got to lose?

Rapid depreciation

Timber rot

Rust

Chipping

Painting

Hull leaks

Deck leaks

**Maintenance costs**  
(all the things that make you wonder sometimes if the game's worthwhile)

Tyler built in GRP. It is a material with unprecedented advantages for fishing craft over conventional materials. All Tyler fishing boats are from the boards of leading architects such as G. L. Watson & Company. The integrity of Tyler mouldings is, in itself, a guarantee of satisfactory service even in the most arduous conditions.

The Tyler range from 18-75ft. Includes hulls suitable for every type of inshore and middle water fishing.

For full information, please mail the coupon below

**TYLER** Tyler Boat Company Limited  
12-21 Sovereign Way,  
Tonbridge, Kent.  
Telephone: 07322 65111

Please forward details of Tyler hulls as indicated below:  
The approximate length of hull I require is \_\_\_\_\_ ft.  
I am normally engaged in the following types of fishing:

MY HOME PORT IS \_\_\_\_\_  
NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
Postcode \_\_\_\_\_

How a metal gauge is used to measure a lobster's carapace.



# Catches and Prices

## TOP LANDINGS LAST WEEK

### GRIMSBY

253,418: Vivaria, BUT (Sk. R. Kurz), 2534 kits, 1, 22 days.  
242,198: Ross Kelly, BUT (Sk. B. Collett), 2245 kits, 1, 22 days.  
237,598: Ross Ramillies, BUT (Sk. D. Scott), 1953 kits, 1, 22 days.  
236,659: Carlisle, Consol. (Sk. K. Haron), 1743 kits, 1, 21 days.  
233,440: Halifax Town, Consol. (Sk. F. Kirby), 1659 kits, 1, 19 days.  
231,121: Boston Phantom, Boston (Sk. T. Smith), 1566 kits, 1, 21 days.  
225,226: Voleas, Boston (Sk. A. Hollington), 1747 kits, 1, 22 days.  
215,950: Crystal Palace, Consol. (Sk. W. Hardie), 722 kits, WS, 22 days.

### Middle Water

221,526: Oakeo, Taylor (Sk. P. Naby), 1240 kits, F/W, 15 days.  
218,281: Erina, Taylor (Sk. G. Smith), 884 kits, F/W, 16 days.  
218,007: Boston Halifax, Boston (Sk. R. Harris), 967 kits, F/W, 17 days.  
217,878: Yeaso, Taylor (Sk. P. Brown), 1174 kits, F, 15 days.  
216,653: Ross Jaguar, BUT (Sk. J. Gordon), 767 kits, F/W, 17 days.

### Seiners

23,336: Lochearn, Sleight (Sk. B. Emson), 326 kits, NS, 9 days.  
27,011: Karen, Richardson (Sk. E. Sveinsson), 298 kits, NS, 13 days.  
26,467: Oibek, Richardson (Sk. C. Thomsen), 290 kits, NS, 14 days.  
26,443: Sanrene, Sleight (Sk. W. Sanderson), 317 kits, NS, 13 days.  
26,277: Hailton, Sleight (Sk. K. Mathissen), 227 kits, NS, 15 days.  
25,688: Veralla, Allard (Sk. E. Olsen), 281 kits, NS, 14 days.  
25,503: Gladness, Allard (Sk. J. Olsen), 280 kits, NS, 12 days.  
25,226: Christen Bank, Allard (Sk. K. Larsen), 246 kits, NS, 15 days.

### Pair teams

210,392: Sonia Jane, (Sk. D. Bewley), 451 kits, and 28,780: Anna Michelle, (Sk. M. Josefson), 398 kits, both John R., NS, 12 days.  
28,686: Searcher, (Sk. B. Najrup), 368 kits, and 28,310: East Bank, (Sk. J. Lee), 350 kits, both Sleight, NS, 8 days.  
27,329: Clea, (Sk. M. Cox), 324 kits, and 26,849: Martin Norman, (Sk. D. Cox), 299 kits, both Sleight, NS, 10 days.  
22,303: Taarnborg, Sleight (Sk. T. Scorer), 108 kits and 21,694: Kathleen, Richardson (Sk. R. Marse), 78 kits, both NS, 8 days.

### HULL

242,341: Benella, Marr (Sk. R. Beamish), 1949 kits, 1, 20 days.  
241,481: Ross Leania, BUT (Sk. G. B. Boyce), 2131 kits, 1, 21 days.  
241,361: Arctic Vandal, BUT (Sk. W. Lewis), 2193 kits, 1, 21 days.  
235,542: St Gerontius, Hamling (Sk. J. R. Nelson), 1825 kits, 1, 23 days.  
235,482: Ross Altair, BUT (Sk. K. Nelson), 1753 kits, 1, 21 days.  
230,316: Samersat Maugham, Newington (Sk. E. Woodbridge), 1463 kits, WS, 21 days.  
229,608: Ross Resolution, BUT (Sk. J. Tripp), 1549 kits, 1, 20 days.

### Seiners

25,971: Sonderborg, Boston (Sk. M. Jansen), 296k, 14d.  
25,722: Lindenberg, Boston (Sk. H. Winkal), 306k, 13d.  
25,020: Arnborg, Boston (Sk. G. Janssen), 234k, 11d.  
24,380: Rosenborg, Boston (Sk. V. Dam), 205k, 13d.  
23,757: Vikingborg, Boston (Sk. N. Jensen), 175k, 12d.  
22,705: Nyborg, Boston (Sk. K. Thim), 120k, 13d.

### FLEETWOOD, Iseland

239,773: Iruana, Marr (Sk. A. Wright), 2140 kits, 1, 17 days.  
236,111: Boston Blenheim, Boston (Sk. R. Rawcliff), 1968 kits, 1, 21 days.  
234,310: Gavina, Marr (Sk. C. Scott), 1774 kits, 1, 20 days.

### Home water

211,312: Narina, Marr (Sk. T. Watson), 664 kits, 17 days.  
210,448: Armana, Marr (Sk. J. Pinna), 567 kits, 16 days.  
20,566: Wyre Revenge, Wyre, (Sk. W. Spaspoint), 520 kits, 15 days.  
20,861: David Wilson, Hazael, (Sk. T. Bedford), 478 kits, 13 days.  
20,046: Loyalist, Hawatt, (Sk. K. Beavre), 308 kits, 15 days.  
20,274: Wyre Conqueror, Wyre (Sk. J. Newsham), 281 kits, 11 days.  
22,661: Marie Jacobs, Boston 125 kits, 12 days.  
22,855: Boston Sea Hawk, Bloomfield, 180 kits, 12 days.

### Near Water

25,935: Resound, Ward 378 kits, 13 days.  
22,377: Farrards, Ward 103 kits, 13 days.  
22,084: Craigmillar, Ward 103 kits, 13 days.  
21,694: Kathleen, Richardson (Sk. R. Marse), 78 kits, both NS, 8 days.

211,225: whiting, 217; rockfish, 215/218; codling, 219.50/223; gurnard, 27; large turbot, 295/2112; small, 250/260, per 70ct kit.

### FLEETWOOD

Prices: English shell cod, 225/227; hake, 247/50; plaice, 222/243; medium haddock, 227.50/230; small, 211.50/217; dogfish, 213/218.50; monkfish, 220/228.50; roker, 29/233; coley, 210/212.50; conger, 21/21; squid, 235.50; tank, 217.30, per 10ct kit; turbot, 24/28; brill, 24; Dover sole, 28.50/218.50, per unit; Icelandic shell cod, 225/228.50; bulk, 221.50/225.50; sprage, 221/225.75; medium haddock, 229/230; small, 215/217; dabs, 211/215; rockfish, 214.30/215.50; coley, 211.75/214.40; megrims, 214; monk halibut, 218/220; lemon sole, 222/226.40, per 10ct kit.

### LOWESTOFT

Prices: cod, 218.50/226; large plaice, 226/239; medium, 226/230; small, 224/227; large haddock, 225/230; small, 211.50/218; dogfish, 220; monkfish, 250/252; lemon sole, 230/242; Dover sole, 210; dabs, 230/242.

### ABERDEEN

225,931: Ben Lui, Irvin (Sk. T. Nelson), 1,454 kits, 1, 21 days.  
214,942: Jasmin, Wood Group (Sk. E. Parker), 780 kits, F, 14 days.  
213,190: Glen Urquhart, Marr (Sk. A. Brown), 885 kits, F, 12 days.  
212,584: Cedarlea, BUT (Sk. J. Campbell), 705 kits, WS, 9 days.  
210,000: Glenista, BUT (Sk. J. Wood), 880 kits, 9, 9 days.  
208,794: Granton Falcon, BUT (Sk. F. Steele), 552 kits, S, 12 days.

### LOWESTOFT

210,839: Boston Sea Sprite, Boston (Sk. M. Raven), 425 kits, NS 13 days.  
27,901: St. Thomas, East Coast (Sk. J. Ketteringham), 328 kits, NS 12 days.  
27,589: Boston Sea Dart, Boston (Sk. A. Quantill), 287 kits, NS 11 days.  
27,529: St. Patrick, East Coast (Sk. T. Martin), 372 kits, NS 12 days.  
27,495: Boston Shackleton, Boston (Sk. A. Jenner), 312 kits, NS 12 days.  
27,452: Suffolk Challenger, Hobson (Sk. D. Smith), 327 kits, NS 12 days.

### GRANTON

215,879: Arctic Riever, Liston (Sk. A. Wanless), 970c, F, 13d.  
210,237: Arctic Hunter, Liston (Sk. A. Wood), 870c, NS, 11d.  
208,889: Arctic Crusader, Liston (Sk. J. Robb), 781c, NS, 11d.

### NORTH SHIELDS

211,807: Ben Chourn, Irvin (Sk. T. Jamieson), 35,849 kit, NS, 15d.  
210,448: Christine Nielsen, Irvin (Sk. C. Ellis), 15,928 kit, NS.  
208,122: Lindisfarne, Irvin (Sk. J. Bailey), 14,355 kit, NS, 4d.  
204,504: Burton Pidsen, Newington (Sk. R. McMain), 13,160 kit, NS, 4d.  
204,228: Ocean Triumph, A.F. (Sk. I. Murray), 11,951 kit, NS, 3d.  
203,710: Fisher Rose, Irvin (Sk. R. Clark), 10,180 kit, NS.  
203,098: Conmorran, Irvin (Sk. M. Morse), 8,520 kit, NS.  
202,923: Emulate, A.F. (Sk. A. Wyse), 9,730 kit, NS, 3d.

### MILFORD HAVEN

22,869: Picton Sealion, Norrard, (Sk. T. Salter), 105 kits, 13 days.  
22,495: Picton Sea Eagle, Norrard, (Sk. J. Donovan), 130 kits, 13 days.  
22,351: Westerdale, Norrard, (Sk. F. Reynolds), 74 kits, 12 days.  
21,751: Jadestart Gypsy, Jones (Sk. J. Brodie), 71 kits, 13 days.

211,225: whiting, 217; rockfish, 215/218; codling, 219.50/223; gurnard, 27; large turbot, 295/2112; small, 250/260, per 70ct kit.

### NORTH SHIELDS

Prices: cod, 217.50; sprage, 217.50; medium codling, 213.50; selected small, 215.70; large and second haddock, 216.40; small, 20.50; medium, 212.60; whiting, 20.50; lemon sole, 233.50; per 40 kilo unit.

### MILFORD HAVEN

Prices: cod, 25/27; monkfish, 217; plaice, 211.40/236.50; haddock, 24/215.50; roker, 210/225; Dover sole, 280/288; hake, 220/242, per 5ct kit.

### BRIXHAM

Prices: plaice, 23.80; monkfish, 27; turbot, 28.80; Dover sole, 219; lemon sole, 28.50; brill, 25.40; dabs, 21.80; whiting, 21.40; slip sole, 210; squid, 23.80; conger, 80p, per stone.

### NEWLYN (Cornwall)

Prices: medium plaice, 22; monkfish, 25.90; turbot, 28.80.

## BILLINGSGATE

ON TUESDAY 162 tons were delivered. Average selling prices on merchants' stalls: squid, 25/28; grey mullet, 20p/24p; Selmon, English, 21.90/22.50; Scotch, 21.90/22.50; Irish, 21.80/22.40; Grilse, 17.50; 21.80/21.50; Scotch, 21.30/21.50; rainbow salmon, 80p/21.80; rainbow salmon, 53p; salmon, tongue, 30p/40p; slaps, 45p/55p; medium, 21.30/21.55; large, 21.20/21.30; bones, 86p/90p; foreign smoked salmon, 25p; lb; turbot, medium, 25.00/27.00; small, 24.50/24.90; Denish small, 22.10/23.50; Denish small, 1lb-1.5lb, 24/24.30; 1lb-2.5lb, 24.30/24.50; medium halibut, 22.60/24.50; small, 24.90/23.30; selected lemon sole, 24/26; headless home water cod, 24/24.10; fillets, shell, 25/25.20; 28p; hun sea, 40p; grey mullet, 38p; barbaun, 35p; wong far, 43p; per lb; fillets, plaice, 27.88; cod, 25.50; haddock, 25.50; squid, 26; kippers, 23/24; per stone.

SELECTED lobsters, 22/22.30; mussels, 21/21.50; crabs, over 3lb, 25p/35p; under 3lb, 18p/25p; small, unsorted, 8p/10p; prawns, 62p/60p; per lb; Scotch winkles, 29p; per cut; shrimps, brown, 80p; pink, 80p/21; English cockles, 21.25/21.40; per gallon.

Frozen fish: PACIFIC NA salmon, 96p; Canadian halibut, 90p/95p; scampi, 95p/12.93; anspere, 28p; hun sea, 40p; grey mullet, 38p; barbaun, 35p; wong far, 43p; per lb; fillets, plaice, 27.88; cod, 25.50; haddock, 25.50; squid, 26; kippers, 23/24; per stone.

## HERRING REPORT

THURSDAY, JULY 8  
Lerwick: Three pursers, 08 tonnes; homemarket, nine tonnes at 210/212, klondyking, 59 tonnes at 210/212. Slightly mixed in size, 260/290 per 50kg. Stormoway: Two drifters, nine tonnes; homemarket, nine tonnes at 210/212. Full and filling fish, slightly mixed in size, 300/310 per 50kg. Mollie: Three trawlers, four tonnes; homemarket, 12 tonnes at 214/210.80, per food, two tonnes at 214, klondyking six tonnes at 210.80, full and filling, 210/212. Uniform to mixed in size, 210/330 per 50kg. Ayre: Six trawlers, eight tonnes; homemarket, eight tonnes at 210.80/233.40. Full and filling fish, hand selected, 220/230 per 50kg. Tarbert: Two trawlers, two tonnes; homemarket, two tonnes at 212/238. Full and filling fish, hand selected, 176/200 per 50kg. Fraserburgh: Four trawlers, 62 tonnes, three pursers, 107 tonnes; homemarket, 145 tonnes at 210.60/212, klondyking, 14 tonnes at 212. Full and filling fish, 265/310 per 50kg.

MUNDAY, JULY 12  
Lerwick: Four pursers, 56 tonnes; homemarket, 32 tonnes at 210/213, klondyking, 26 tonnes at 210/212.60. Uniform to slightly mixed in size, 250/280 per 50kg. Stormoway: Two trawlers, eight tonnes, two drifters, four tonnes; homemarket, 12 tonnes at 214/210.80, per food, two tonnes at 214, klondyking six tonnes at 210.80, full and filling, 210/212. Uniform to mixed in size, 210/330 per 50kg. Ayre: Six trawlers, eight tonnes; homemarket, eight tonnes at 210.80/233.40. Full and filling fish, hand selected, 220/230 per 50kg. Tarbert: Two trawlers, two tonnes; homemarket, two tonnes at 212/238. Full and filling fish, hand selected, 176/200 per 50kg. Fraserburgh: Four trawlers, 62 tonnes, three pursers, 107 tonnes; homemarket, 145 tonnes at 210.60/212, klondyking, 14 tonnes at 212. Full and filling fish, 265/310 per 50kg.

FRIDAY, JULY 9  
Lerwick: Six pursers, 81 tonnes; homemarket, 29 tonnes at 210.20/211.40, klondyking, 52 tonnes at 210.50/212.10. Uniform to slightly mixed in size, 252/270 per 50kg. Stormoway: two drifters, two tonnes; homemarket, two tonnes at 211.50/210.80. Full and filling fish, hand selected, 140/230 and 320/350 per 50kg. Fraserburgh: Four trawlers, four tonnes; homemarket, four tonnes at 211.80/238.20. Full and filling fish, hand selected, 190/230 and 320/350 per 50kg. Tarbert: Three trawlers, four tonnes; homemarket, four tonnes at 212.80/234.20. Full and filling fish, hand selected, 174/320 per 50kg. Fraserburgh: Three trawlers, 11 tonnes; homemarket, 11 tonnes at 218.80/238.80. Full and filling fish, hand selected, 240/270 and 320/350 per 50kg.

TUESDAY, JULY 13  
Lerwick: seven pursers, 71 tonnes; homemarket, 40 tonnes at 210, klondyking, 61 tonnes at 210.10/210.60. Uniform to slightly mixed in size, 254/300 per 50kg. Stormoway: one purser, two tonnes; homemarket, two tonnes at 210/212.60. Mixed in size, 300 per 50kg. Tarbert: three trawlers, three tonnes; homemarket, three tonnes at 214/238.20. Full and filling fish, hand selected, 174/282 per 50kg. Ayre: six trawlers, 11 tonnes; homemarket, 11 tonnes at 218.80/238.80. Full and filling fish, hand selected, 240/270 and 320/350 per 50kg.

FRIDAY, JULY 9  
Lerwick: Six pursers, 81 tonnes; homemarket, 29 tonnes at 210.20/211.40, klondyking, 52 tonnes at 210.50/212.10. Uniform to slightly mixed in size, 252/270 per 50kg. Stormoway: two drifters, two tonnes; homemarket, two tonnes at 211.50/210.80. Full and filling fish, hand selected, 140/230 and 320/350 per 50kg. Fraserburgh: Four trawlers, four tonnes; homemarket, four tonnes at 211.80/238.20. Full and filling fish, hand selected, 190/230 and 320/350 per 50kg. Tarbert: Three trawlers, four tonnes; homemarket, four tonnes at 212.80/234.20. Full and filling fish, hand selected, 174/320 per 50kg. Fraserburgh: Three trawlers, 11 tonnes; homemarket, 11 tonnes at 218.80/238.80. Full and filling fish, hand selected, 240/270 and 320/350 per 50kg.

TUESDAY, JULY 13  
Lerwick: seven pursers, 71 tonnes; homemarket, 40 tonnes at 210, klondyking, 61 tonnes at 210.10/210.60. Uniform to slightly mixed in size, 254/300 per 50kg. Stormoway: one purser, two tonnes; homemarket, two tonnes at 210/212.60. Mixed in size, 300 per 50kg. Tarbert: three trawlers, three tonnes; homemarket, three tonnes at 214/238.20. Full and filling fish, hand selected, 174/282 per 50kg. Ayre: six trawlers, 11 tonnes; homemarket, 11 tonnes at 218.80/238.80. Full and filling fish, hand selected, 240/270 and 320/350 per 50kg.

FRIDAY, JULY 9  
Lerwick: Six pursers, 81 tonnes; homemarket, 29 tonnes at 210.20/211.40, klondyking, 52 tonnes at 210.50/212.10. Uniform to slightly mixed in size, 252/270 per 50kg. Stormoway: two drifters, two tonnes; homemarket, two tonnes at 211.50/210.80. Full and filling fish, hand selected, 140/230 and 320/350 per 50kg. Fraserburgh: Four trawlers, four tonnes; homemarket, four tonnes at 211.80/238.20. Full and filling fish, hand selected, 190/230 and 320/350 per 50kg. Tarbert: Three trawlers, four tonnes; homemarket, four tonnes at 212.80/234.20. Full and filling fish, hand selected, 174/320 per 50kg. Fraserburgh: Three trawlers, 11 tonnes; homemarket, 11 tonnes at 218.80/238.80. Full and filling fish, hand selected, 240/270 and 320/350 per 50kg.

TUESDAY, JULY 13  
Lerwick: seven pursers, 71 tonnes; homemarket, 40 tonnes at 210, klondyking, 61 tonnes at 210.10/210.60. Uniform to slightly mixed in size, 254/300 per 50kg. Stormoway: one purser, two tonnes; homemarket, two tonnes at 210/212.60. Mixed in size, 300 per 50kg. Tarbert: three trawlers, three tonnes; homemarket, three tonnes at 214/238.20. Full and filling fish, hand selected, 174/282 per 50kg. Ayre: six trawlers, 11 tonnes; homemarket, 11 tonnes at 218.80/238.80. Full and filling fish, hand selected, 240/270 and 320/350 per 50kg.

FRIDAY, JULY 9  
Lerwick: Six pursers, 81 tonnes; homemarket, 29 tonnes at 210.20/211.40, klondyking, 52 tonnes at 210.50/212.10. Uniform to slightly mixed in size, 252/270 per 50kg. Stormoway: two drifters, two tonnes; homemarket, two tonnes at 211.50/210.80. Full and filling fish, hand selected, 140/230 and 320/350 per 50kg. Fraserburgh: Four trawlers, four tonnes; homemarket, four tonnes at 211.80/238.20. Full and filling fish, hand selected, 190/230 and 320/350 per 50kg. Tarbert: Three trawlers, four tonnes; homemarket, four tonnes at 212.80/234.20. Full and filling fish, hand selected, 174/320 per 50kg. Fraserburgh: Three trawlers, 11 tonnes; homemarket, 11 tonnes at 218.80/238.80. Full and filling fish, hand selected, 240/270 and 320/350 per 50kg.

TUESDAY, JULY 13  
Lerwick: seven pursers, 71 tonnes; homemarket, 40 tonnes at 210, klondyking, 61 tonnes at 210.10/210.60. Uniform to slightly mixed in size, 254/300 per 50kg. Stormoway: one purser, two tonnes; homemarket, two tonnes at 210/212.60. Mixed in size, 300 per 50kg. Tarbert: three trawlers, three tonnes; homemarket, three tonnes at 214/238.20. Full and filling fish, hand selected, 174/282 per 50kg. Ayre: six trawlers, 11 tonnes; homemarket, 11 tonnes at 218.80/238.80. Full and filling fish, hand selected, 240/270 and 320/350 per 50kg.

FRIDAY, JULY 9  
Lerwick: Six pursers, 81 tonnes; homemarket, 29 tonnes at 210.20/211.40, klondyking, 52 tonnes at 210.50/212.10. Uniform to slightly mixed in size, 252/270 per 50kg. Stormoway: two drifters, two tonnes; homemarket, two tonnes at 211.50/210.80. Full and filling fish, hand selected, 140/230 and 320/350 per 50kg. Fraserburgh: Four trawlers, four tonnes; homemarket, four tonnes at 211.80/238.20. Full and filling fish, hand selected, 190/230 and 320/350 per 50kg. Tarbert: Three trawlers, four tonnes; homemarket, four tonnes at 212.80/234.20. Full and filling fish, hand selected, 174/320 per 50kg. Fraserburgh: Three trawlers, 11 tonnes; homemarket, 11 tonnes at 218.80/238.80. Full and filling fish, hand selected, 240/270 and 320/350 per 50kg.

TUESDAY, JULY 13  
Lerwick: seven pursers, 71 tonnes; homemarket, 40 tonnes at 210, klondyking, 61 tonnes at 210.10/210.60. Uniform to slightly mixed in size, 254/300 per 50kg. Stormoway: one purser, two tonnes; homemarket, two tonnes at 210/212.60. Mixed in size, 300 per 50kg. Tarbert: three trawlers, three tonnes; homemarket, three tonnes at 214/238.20. Full and filling fish, hand selected, 174/282 per 50kg. Ayre: six trawlers, 11 tonnes; homemarket, 11 tonnes at 218.80/238.80. Full and filling fish, hand selected, 240/270 and 320/350 per 50kg.

FRIDAY, JULY 9  
Lerwick: Six pursers, 81 tonnes; homemarket, 29 tonnes at 210.20/211.40, klondyking, 52 tonnes at 210.50/212.10. Uniform to slightly mixed in size, 252/270 per 50kg. Stormoway: two drifters, two tonnes; homemarket, two tonnes at 211.50/210.80. Full and filling fish, hand selected, 140/230 and 320/350 per 50kg. Fraserburgh: Four trawlers, four tonnes; homemarket, four tonnes at 211.80/238.20. Full and filling fish, hand selected, 190/230 and 320/350 per 50kg. Tarbert: Three trawlers, four tonnes; homemarket, four tonnes at 212.80/234.20. Full and filling fish, hand selected, 174/320 per 50kg. Fraserburgh: Three trawlers, 11 tonnes; homemarket, 11 tonnes at 218.80/238.80. Full and filling fish, hand selected, 240/270 and 320/350 per 50kg.

TUESDAY, JULY 13  
Lerwick: seven pursers, 71 tonnes; homemarket, 40 tonnes at 210, klondyking, 61 tonnes at 210.10/210.60. Uniform to slightly mixed in size, 254/300 per 50kg. Stormoway: one purser, two tonnes; homemarket, two tonnes at 210/212.60. Mixed in size, 300 per 50kg. Tarbert: three trawlers, three tonnes; homemarket, three tonnes at 214/238.20. Full and filling fish, hand selected, 174/282 per 50kg. Ayre: six trawlers, 11 tonnes; homemarket, 11 tonnes at 218.80/238.80. Full and filling fish, hand selected, 240/270 and 320/350 per 50kg.

FRIDAY, JULY 9  
Lerwick: Six pursers, 81 tonnes; homemarket, 29 tonnes at 210.20/211.40, klondyking, 52 tonnes at 210.50/212.10. Uniform to slightly mixed in size, 252/270 per 50kg. Stormoway: two drifters, two tonnes; homemarket, two tonnes at 211.50/210.80. Full and filling fish, hand selected, 140/230 and 320/350 per 50kg. Fraserburgh: Four trawlers, four tonnes; homemarket, four tonnes at 211.80/238.20. Full and filling fish, hand selected, 190/230 and 320/350 per 50kg. Tarbert: Three trawlers, four tonnes; homemarket, four tonnes at 212.80/234.20. Full and filling fish, hand selected, 174/320 per 50kg. Fraserburgh: Three trawlers, 11 tonnes; homemarket, 11 tonnes at 218.80/238.80. Full and filling fish, hand selected, 240/270 and 320/350 per 50kg.

# Loran for BUT Icelandic fleet

BRITISH United Trawlers' fleet of 13 side trawlers which have been allocated fishing days to work the Icelandic grounds under the recent Oslo agreement are all being fitted with high accuracy navigation aids.

After several months of trials, Decca's DL91 Loran C (long range navigation) receivers are being fitted aboard the following trawlers being operated by the BUT subsidiary, Hallyer Brothers: Kingstair, Beryl, Kingston Pearl, Kingston Amber, Ross Altair, Ross Leonis, Ross Resolution, Ross Trafalgar, Ross Conqueror, Ross Otranto, Ross Sirius, Polstaff, Loch Erriboll and Portia. The installation work on all 13 vessels should be completed during the next two to three weeks.

These ships are already equipped with the Decca Navigator and have also been fitted with the Track Plotter, which will interface with the DL91 receiver, to enable them to hold pre-determined tracks. This allows planned fishing to be carried out, and these tracks recorded so that they can be subsequently analysed and repeated.

The automatic DL91 Loran Receiver is claimed to offer many outstanding



